IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS	:	Michael Maguire
TITLE	:	SYSTEM AND METHOD FOR ABBREVIATING INFORMATION SENT TO A VIEWING DEVICE
SERIAL NO.	:	09/624,285
FILING DATE	:	July 24, 2000
EXAMINER	:	Burge, Londra
GROUP ART UNIT	:	2178
ATTORNEY DOCKET NO.	:	555255012115

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents. P.O. Box 1450, Alexandria, VA 22313-1450

on _August 4, 2005_

By: _Debra Pijeau_

Declaration of Prior Invention to Overcome Cited Patents Under 37 C.F.R. § 1.131

A̶s̶s̶i̶s̶t̶a̶n̶t̶ Commissioner for Patents
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Sir:

This Declaration is submitted by the undersigned inventor to establish that the subject matter described and claimed in this application was invented prior to May 18, 2000, which is the filing date of US 6,593,944 to Nicolas ("Nicolas").

I, Michael Maguire, the inventor of United States Patent Application S/N 09/624,285, titled "System and Method for Abbreviating Information Sent to a Viewing Device" declare as follows:
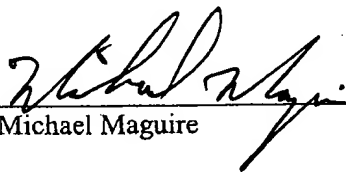
1. Prior to May 18, 2000, I conceived of the subject matter described and claimed in the above-titled patent application. Evidence of this conception is set forth at Tab A hereto.

CLI-1306481v1

The document at Tab A is an invention disclosure form that I completed well before May 18, 2000. The invention disclosure form is titled "Graphical Abbreviation of Structured Information for Small Browsers." This document was provided to the assignee's outside patent counsel prior to May 18, 2000 in order to prepare the above titled patent application.

2. From prior to May 18, 2000, until the filing of this patent application on July 24, 2000, I worked with the assignee's inside patent counsel, and the outside patent counsel, to review and finalize this patent application. On information and belief, both the inside patent counsel and the outside patent counsel were diligently working on this application from prior to May 18, 2000, up until the application was subsequently filed on July 24, 2000.

3. I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

By: _Michael Maguire_   Date: 13 Jul 05

Invention Disclosure Form

Reference Number:
TO BE ASSIGNED BY:

THE PURPOSE OF THIS FORM IS TO:
* bring to Krishna Pathiyal's attention the development of ideas that are believed to be novel and of value to RIM;
* provide a description of the Invention that establishes an invention date;
* provide RIM's outside patent counsel with a description of the Invention that facilitates processing of a patent application.

Complete this form by typing the information requested. Submit the completed disclosure form with any additional material requested below to Krishna Pathiyal.

1. TITLE OF INVENTION: Enter a short descriptive phrase that will serve as the title of the Invention.

Graphical Abbreviation of Structured Information for Small Browsers

2. DESCRIPTION OF INVENTION: Enter a brief description of the nature and application of the Invention.

The invention provides a way to conveniently preview content on a browser with a display which is too small to accurately display the entire document in its intended format and layout. On some smaller format devices, it will be impractical to attempt to view a document at a scale which is both readable and which provides a sense of the intended format and layout of the document. The invention consists of initially displaying a bitmap which represents a scaled-down, abbreviated form of what the document actually would have appeared as on a larger browser window on a larger display. The bitmap will allow the user to gather the general gist of how the document was intended to appear. The user will then be able to make a more informed decision as to whether they actually wished to incur the cost and wait of downloading the actual content of the document to their device. In summary, the user will be able to view a graphical abbreviation of what the entire document would have appeared as on a larger browser and choose whether to view the document in detail.

An extremely important application of the invention would be the case of displaying HTML frames on a browser with a display which is too small to accurately display the entire HTML document. On some smaller format devices, it will be impractical to attempt to divide already small screen real-estate into subsections of viewable text. Instead of viewing the whole document with all of its frames, the browser will show the graphical abbreviation of the whole page. The frameset of the document will be apparent to the user in the graphical abbreviation. An initial frame would be selected somehow (perhaps with a rectangle around it) and using the input mechanism available on the device, the user will be able to move the selection to other frames displayed in the graphical abbreviation of the page. The user will be able to select a given frame and indicate her intent to read the HTML document contained in that frame. In summary, the user will be able to view a miniaturized preview of what the entire HTML frameset would have appeared as on a larger browser and choose which of the frames to view in full on the device.

3. Identify the projects and products where the Invention may be incorporated.

Inventor:

Michael Andrew Maguire

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understood by me:

FULL NAME (TYPE)   SIGNATURE   Date

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The invention is extremely amenable to any device with a small viewing screen on which one would want to view documents with some formatting structure that cannot be accurately reproduced on a small device. For example, it would be ideal for viewing web pages that contain HTML frames on the BlackBerry.

4. The following dates apply to the Invention:

a) Date marketing began (or is planning to begin) for any products utilizing the Invention: __/__/__.
b) Date RIM shipped (or has plans to ship) any product utilizing the Invention: __/__/__.
c) Date any written material in which the Invention is described, has been (or will be) distributed: 10/06/1999.
d) If the Invention has been described to anyone outside of RIM who has not signed a confidentiality agreement enter date, names, and circumstances surrounding the disclosure:
   Date: __/__/__
   Names:
   Circumstances:
e) If the Invention has been used by anyone outside of RIM enter date, names and circumstances:
   Date: __/__/__
   Names:
   Circumstances:
f) First recorded a description of the Invention 10/06/1999 in email to David Yach presently available on RIM Exchange server.
g) When was a model of the Invention completed: __/__/__.
h) When was a photo of the model taken: __/__/__.
i) Device or system utilizing the Invention first tested on __/__/__ by _____ at _____. Was the test successful? _____

5. Describe the concern of problem your Invention addresses.

Small, portable, wireless devices which can connect to the internet are becoming more and more common. Viewing structured content on these devices can be difficult, as screen real-estate is limited. HTML frames present a special problem, as dividing up the already small screen into sub-areas makes readability even more difficult. The invention attempts to alleviate this problem by providing a convenient mechanism for users to preview a graphical abbreviation of the full document with all its intended structure, and then choose whether to view the document. The invention also provides a mechanism for graphically selecting which sub-area of a document to view.

Inventor:

Michael Andrew Maguire

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6. Identify any devices or systems known to you that address the same concern or problem. (Also include those developed by RIM and any known patents or publications that address the problem (attach copies).

Commercially Available:

)

Patented devices:

7. Identify the differences between your Invention and each known device or article described above and describe any impact those differences can have in providing value to _____.

8. Identify any other unique aspects of your Invention.

Inventor:

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Other small devices attempt to allow you to view the entire web page, or only allow you to view one of the frames.

9. **Provide a detailed description of your Invention. This is the most important section of the Disclosure Form.** Attach as many drawings, circuit diagrams, or other documentation that describes the Invention as possible - apply reference numerals to the various elements of the drawings and use those reference numerals in your detailed description. You must disclose the best mode you know for practicing the Invention. Describe the various elements of the Invention in terms of the function the elements accomplish, and how they cooperate with one another. Point out the important elements and those elements that may be replaced with other known elements. Describe the Invention as you would to another person skilled in your field of expertise.

The invention would consist of an architecture which would, given a document containing structure, produce an image that would show a rough view – a "graphical abbreviation" – of what the page would appear like when rendered on a larger device.

A first step in the processing would be to load the document in and generate a layout of what the document would appear as if rendered on a larger screen. In this first step, a bitmap would be generated at a size of 640x480 or 800x600 pixels.

The next step of the process would be to reduce this image down to a size displayable on the small device's screen. This step would most likely produce some distortion of the document, but would allow the user to get a general idea for the layout of the document as intended by the document's author.

In the case of a document with sub-areas such as an HTML document with HTML frames, the next step would be to generate an image map to be associated with the bitmap. This image map would define a set of selection areas which would be high-lighted when the user used the selection mechanism on the device to choose which frame to view.

The final steps would be to send this reduced image – in some cases along with the image map information – to the device and to allow the user to chose whether to view the document or whether to view a part of the document.

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In this way, the original document with its structure will have been transformed into a graphical abbreviation of the document viewable on the device.

As an aside for implementation: We can represent the page to be viewed on the device as an HTML page with an image and a link to the text-only content of the document to be viewed in detail should the user decide to view the document. As well, for the case of a document with subsections, since image maps are standard HTML, one could send the image and associated selection rectangle information as a single, frameless HTML document. In this case we will have transformed a document with structure and possible sub-areas, such a document with HTML frames, into an HTML document without frames, but with an image and possibly an associated image map with links to each of the frames within the original document.

To demonstrate how this invention might work for a user, here we provide a basic flow chart of the steps which a user of a small device might take to view a document that has been graphically abbreviated:

A) The user uses a program on the device to select an URL. This might, for example be through screens such as the ones below:

```
All L Hide Menu
Use   Enter new URL
      Show URL
      Edit Title
      Show Bookmarked URLs ▼


Enter URL
URL:
```

The URL might then be typed in using some form of keypad or touchscreen. The URL might also be selected by following an embedded link in another web page already displayed.

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The specifics of the actual input mechanism are irrelevant. Of concern here is that the user somehow selects a document they wish to have displayed.

For the sake of example, let us imagine that the user has selected the URL:

http://www.rim.net/

This document, when viewed on a full-sized browser on a PC (in this example using Microsoft Internet Explorer v. 5) might look something like:

Inventor:

Michael Andrew Maguire
_____
FULL NAME (TYPE)

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SIGNATURE   Date

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FULL NAME (TYPE)   SIGNATURE   Date
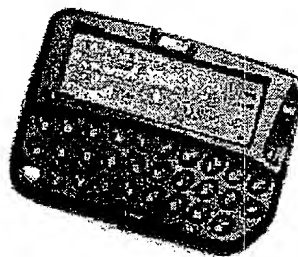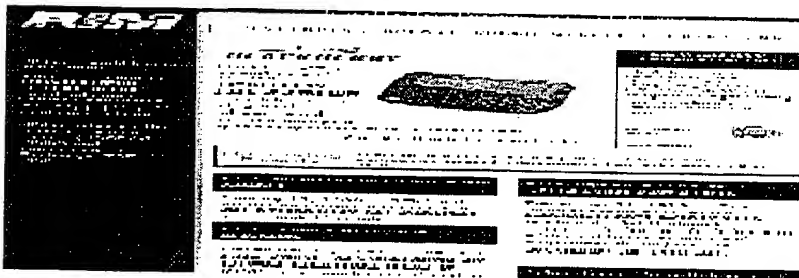
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DEVELOPING BREAKTHROUGH WIRELESS SOLUTIONS

RIM is a world leader in the mobile communications market. The current product portfolio includes mobile email solutions, wireless handhelds, two-way pagers, and wireless modems.

RIM is listed on The NASDAQ Stock Market (NASDAQ: RIMM) and The Toronto Stock Exchange (TSE: RIM).

BLACKBERRY

BlackBerry™ is an end-to-end solution developed by RIM. It is the first complete, secure, integrated wireless email solution designed specifically for the mobile professional.
Visit the BlackBerry web site.

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BlackBerry was selected as "the ultimate mobile computing tool of 1999" by InfoWorld Magazine for providing easy and timely wireless access to email.

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Upcoming Events
RIM can be found at a variety of conferences and tradeshows across North America. Find out where we'll be next!

RIM and Nortel Networks Form Alliance

January 18, 2000 -- RIM and Nortel Networks have entered into a technology and marketing agreement. More info.

RIM Opens R&D Center In Kanata

December 22, 1999 -- The new R&D center will complement the growing engineering teams at RIM's headquarters in Waterloo,

RIM Supplies BlackBerry to Credit Suisse First Boston

December 21, 1999 -- Over three hundred BlackBerry Handhelds have already been deployed. CSFB plans to continue deploying BlackBerry to additional business units and employees throughout the upcoming year. More info.

Other Recent Press Releases

Inventor:

Michael Andrew Maguire

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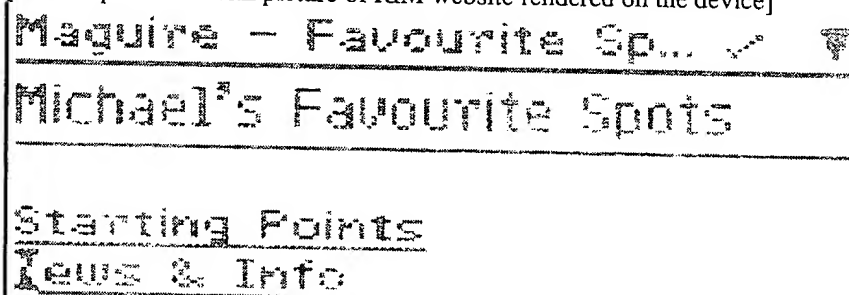
FULL NAME (TYPE)	SIGNATURE	Date

B) The device would then take steps to retrieve the graphically abbreviated version of the document. At this stage the processing would take place to provide a graphical abbreviation of the document which would then be displayed on the device to the user:

C) From this view, the user could then decide whether to view the document, or whether to cancel out of this action.

C1) Should the user choose to view the document, they would indicate this choice via some mechanism on the device, such as, for example, pressing an enter key or e.g. pressing down on a thumbwheel on a device such as the RIM pager. The document would then be rendered in further detail for the user on the device in a manner suitable for reading the document, perhaps, for example, in a text-only mode:

[Note: replace this with picture of RIM website rendered on the device]

Maguire — Favourite Sp... ✓ ▼

Michael's Favourite Spots

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C2) If the user chose to not view the document in further detail, they could indicate this choice via some mechanism on the device, such as, for example a cancel or escape key. In this case they would be returned to the previous screen from which they had come.

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As mentioned, a very important special case of this innovation would be the way in which it provides a solution to the problem of viewing content on a small device which contains sub-areas such as HTML frames.

Here we show a flowchart of the steps involved when a user views an HTML page with frames.

A) The user would use some input mechanism (as previously discussed) to select a document to view. For an example, let us suppose the user selects:

http://www.geocities.com/Athens/Acropolis/4166/framefavs.html

Below we see this document as viewed in full-size browser on a large desktop screen.

Inventor:

Michael Andrew Maguire

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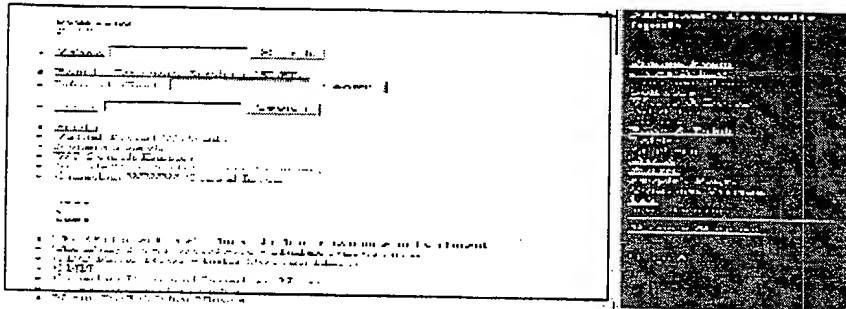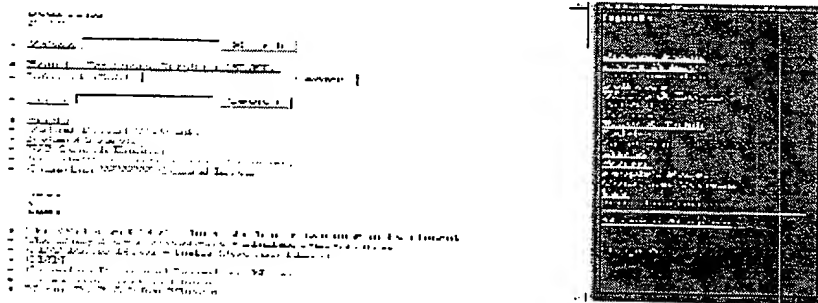FULL NAME (TYPE)   SIGNATURE   Date

Invention Disclosure Form

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starting
points
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- Yahoo [   ] Search

- Four11 Directory Services (SLED)
- Infoseek Guide [   ] Search

- Lycos [   ] Search

- Excite
- Virtual Tourist Web Info
- Netfind Search
- W3 Search Engines
- World-Wide Web Servers: Summary
- Canadian WWW Central Index

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news
&
info
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- The Globe and Mail - this is the best news source I've found
- The Daily News Worldwide - Halifax e-newspaper
- CBC Radio News - faster Swedish Mirror
- CNN
- Canadian Press and Broadcast News
- News from Reuters Online
- Xerox PARC Map Viewer

Michael's Favourite Spots

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Politics
Academia
Travel
Bizarre
People's Pages
Computer Systems
$$$
Miscellaneous

Michael Maguire

11 Apr 97

Inventor:

Michael Andrew Maguire

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Date

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B) The user would then be presented with the graphical abbreviation of the document on the device. Since the document contains sub-areas (frames) one of these sub-areas would be initially selected by default according to some rule. Note that the rule used to decide which frame to initially select could be quite intelligent, somehow deciding which frame the user would be most likely to want to see – perhaps based on size of the sub-area, etc. Here is the HTML page as viewed on small device such as BlackBerry for previewing. Notice the selection of the top left frame via e.g. a rectangle:

C) The user could [optionally] use some input mechanism (thumbwheel, pressing <DOWN> button, etc.) to move selection to another sub-area in the document. Here we see the user changing the selection to the second frame in the document:

D) The user could use an input mechanism (pressing down on thumbwheel, hitting <ENTER> key, etc.) to accept desired frame as one to view and then this frame is displayed on device in greater detail. In this case the user has in fact selected the first frame to view:

Inventor:

Michael Andrew Maguire

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RIM

Invention Disclosure Form

Page 12 of 12
DISCLOSURE DATE:

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Inventor:

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